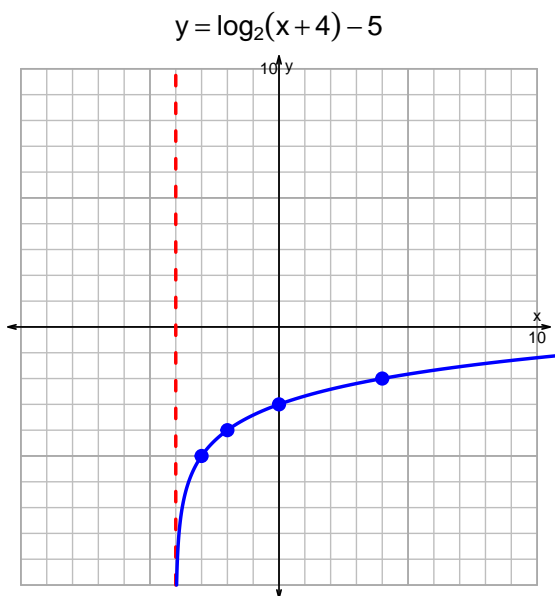


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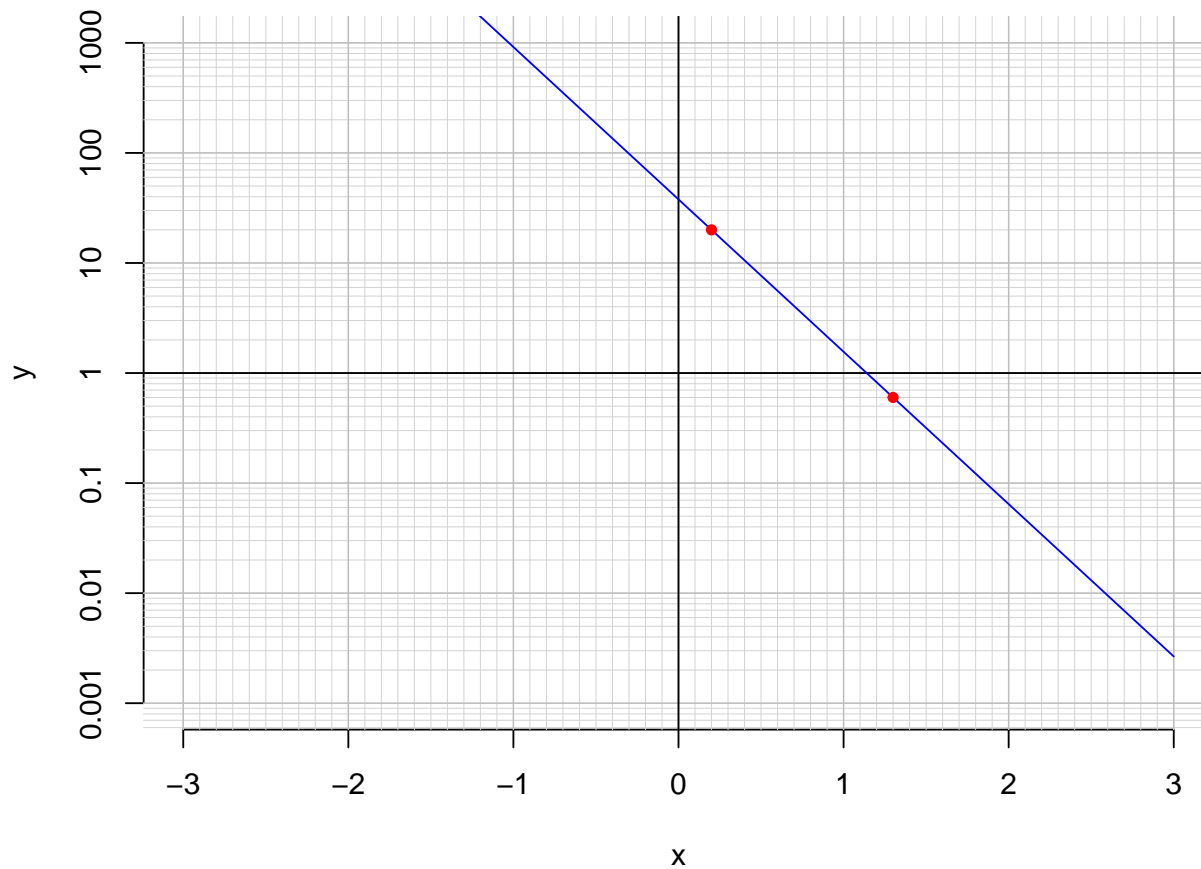
Date: _____

s18QUIZ: EXP LOG (SLTN v212)

1. Graph $y = \log_2(x + 4) - 5$ and $y = 2^{x-4} - 5$ on the grids below. Also, draw any asymptotes with dotted lines.



3. An exponential function $f(x) = 37.8 \cdot e^{-3.19x}$ is graphed below on a semi-log plot.



- a. Using the plot above, evaluate $f(1.3)$.

$$f(1.3) = 0.6$$

- b. Express $f^{-1}(x)$, the inverse of f .

$$f^{-1}(x) = \frac{-1}{3.19} \cdot \ln\left(\frac{x}{37.8}\right)$$

- c. Using the plot above, evaluate $f^{-1}(20)$.

$$f^{-1}(20) = 0.2$$